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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/921,319	08/02/2001	Masayuki Kurano	01464/LH	5047

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EXAMINER

DOUGHERTY, THOMAS M

ART UNIT

PAPER NUMBER

2834

DATE MAILED: 10/21/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/921,319

Applicant(s)

KURANO ET AL.

Examiner

Thomas M. Dougherty

Art Unit

2834

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 October 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) 1-9 and 16 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 10-15 and 17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 August 2001 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 10-15 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Mei (US 6,331,923) in view of Nishizawa et al. (JP 62-88382). Mei shows (fig. 1) a head supporting arrangement comprising: a base plate (18) to be fixed; a support spring for supporting a head (any of 24-26); and a microactuator device (either of 32, 34) connected to said base plate (18) and said support spring (24-26). Said support spring (24-26) is elastically coupled with said base plate (18). He shows a plurality of microactuator devices connected between said base plate (18) and said support spring (for example at 28 the actuators are connected between the spring and base). The head supported by a support spring of said head supporting arrangement to access a rotary disk, the microactuator device of said head supporting arrangement carrying out fine adjustment of a positional relationship of said head with respect to said disk. (Understood from the Background and Summary of the invention). His disk drive device uses a magnetic head. See col. 5, ll. 15 and 16.

He doesn't show the microactuator device being coated with a coating film collectively with portions of said base plate and said support spring which are adjacent to said microactuator device.

Nishizawa notes coating a laminated piezoelectric device in order to prevent electrode migration. He doesn't note a superstructure including a base plate, support spring or a head for accessing a rotary disk.

It would have been obvious to one having ordinary skill in the art to coat the components of Mei at the time of his invention, such as is taught by Nishizawa, in order to prevent electrode migration. Such use also would prevent unintentional activation, short circuits, of the device due to particulates.

Claims 10-15 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Murphy et al. (US 6,157,522) in view of Nishizawa et al. (JP 62-88382). Murphy shows (fig. 2) a head supporting arrangement comprising: a base plate (20) to be fixed; a support spring (between 18 and the piezoelectric actuators) for supporting a head (24) microactuator device (42a, 42b) connected to said base plate (20) and said support spring. Said support spring is elastically coupled with said base plate (20). He shows a plurality of microactuator devices (42a, 42b) connected between said base plate (20) and said support spring. The head (on slider 24) supported by a support spring of said head supporting arrangement to access a rotary disk, the microactuator device of said head supporting arrangement carrying out fine adjustment of a positional relationship of said head with respect to said disk (see col. 1, ll. 27-29). His disk drive device uses a magnetic head. See col. 1, ll. 18 and 19.

He doesn't show the microactuator device being coated with a coating film collectively with portions of said base plate and said support spring which are adjacent to said microactuator device.

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Nishizawa notes coating a laminated piezoelectric device in order to prevent electrode migration. He doesn't note a superstructure including a base plate, support spring or a head for accessing a rotary disk.

It would have been obvious to one having ordinary skill in the art to coat the components of Murphy et al. at the time of their invention, such as is taught by Nishizawa, in order to prevent electrode migration. Such use also would prevent unintentional activation, e.g. short circuits, of the device due to particulates.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The remaining prior art cited reads on the structural features absent the coating of the claimed invention.

Direct inquiry concerning this action to Examiner Dougherty at (703) 308-1628.

tmd

tmd

October 16, 2002

Thomas M. Dougherty

THOMAS M. DOUGHERTY
PRIMARY EXAMINER
GROUP 2100

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